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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,126	02/15/2001	Jeong-Hoon Park	Q62554	1502
7590	07/13/2005		EXAMINER	
SUGHRUE, MION, ZINN MACPEAK & SEAS, PLLC 2100 PENNSYLVANIA AVENUE, N.W. WASHINGTON, DC 20037-3202				ABRAHAM, ESAW T
		ART UNIT		PAPER NUMBER
		2133		

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/783,126	PARK ET AL.	
	Examiner	Art Unit	
	Esaw T. Abraham	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 27 April 2005.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-39 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

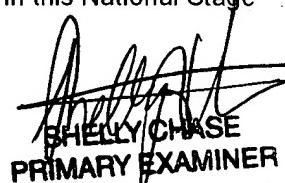
Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 27 April 2005 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.



SHELLY CHASE
PRIMARY EXAMINER

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

Final office action

Response to the applicant's amendments

1. Applicants argument/amendments with respect to claims 1-39 filed on 04/27/05 have been fully considered but are not persuasive. The examiner would like to point out that this action is made final (MPEP 706.07a).
2. The drawings were received on 04/27/05. These drawings are accepted.
3. In view of the amendment filed on 04/27/05, the examiner withdraws all objections to the specification.
4. In view of the amendment filed on 04/27/05, the Examiner withdraws all objections to the claims.
5. In view of the Amendment filed 04/27/05, the examiner withdraws the previous 35 USC § 112 rejections in the previous Office Action filed on 01/27/05.

Response to the applicant's argument

The applicant argues that the prior arts of record Sen et al. or Gage do not teach or suggest adding header information by referring to the established catalog. However, this argument is moot. This is so because the cited prior art (Sen et al.) clearly teach a classification application utilizing a table (catalog) of connection numbers and associated TCP/IP applications utilized for determining a wireless packet communication, quality of service level by decoding connection number field of the packet header (see abstract). Therefore, the application of the prior art in relation to the claimed invention is appropriate.

As for the argument that no header information of each layer is added to the application data, the examiner disagrees and asserts that header information of each layer must be added to

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the application data and inherently requires since a header information is the part of a message that describes the originator, the address and other recipients, message priority levels or precedes the data or control signals and describes about the transmission unit, such as its length and whether there are other files or transmission units logically or physically associated with this one. In light of the responses above, the examiner believes that the prior art were properly applied.

As for the argument that Gage et al. do not teach that adding error detecting codes in a physical layer. However, Gage et al. teach that an RLP type based on the generic service(s) available to mobile station, as for example voice services, packet data services, and/or circuit switched data services and the voice service may use an RLP providing error detection and forward error correction, the packet data service may use an RLP providing error detection and retransmissions, while the circuit switched data service may use an RLP providing transparent bit service (see col. 3, lines 33-67). Further, the on page 2, lines 5-8 of the applicant's related art, the applicant teaches that the cdma telecommunication system checks for errors (error detection) or CRC in the physical layer (see page 2, lines 5-8). Therefore, the applicants' argument although acknowledged, has not been found to be convincing.

The applicant further argues that the prior arts (Sen or Gage) do not teach the catalog is established during a previous transmission/reception of application data. However, Sen et al. in claim 1 clearly teaches that providing a table (catalog) comprising a first set of data and second set of data, said first set of data containing a plurality of identified connection numbers, and said second set of data containing a corresponding quality of service plane for each identified connection number in the table, wherein each of said plurality of identified connection numbers

is an identifier of a particular data packet connection; and mapping within said table said connection number for said data packet to a corresponding quality of service plane. The argument is again acknowledged but is not convincing.

The applicant further argues that Gage et al. do not teach the quality of service is a delay time value of the transmitted data or an error generation probability of the transmitted data. However, Gage et al. teach that AIPs define a limited number of RLPs and select the RLP for a connection during the connection setup phase based on the service requirements and the service is defined by the type of information transmitted (i.e. voice, packet data, control packet, etc.) and by the quality of service (QoS) required and the quality of service (QoS) of a particular type of service is dependent upon the errors encountered over the communication link, the delays encountered in transmitting the information, and/or the information lost while transmitting over the communications link (see col. 1, lines 49-59). In light of the above, the final rejection holds strong in view of the recited reference.

1. Claims 1-39 remain pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere CO.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sen et al (U.S. PN: 6,765,909) in view of Gage et al. (U.S. PN: 6,515,972).

As per claims 1, 4, 5 and 39, Sen et al. a wireless communication networks and particularly to service levels within the communication networks (see col. 1, lines 15-20) Sen et al. teach a classification application utilizing a table (catalog information) of connection numbers and associated Ids is utilized of service level decoding (deciphering) a connection number field of the compressed IP packet header and packets carrying different connection numbers mapped to different quality of service planes (see col. 3, lines 24-31). Sen et al. teach that when a non-active TCP connection becomes active, the classification detects and identifies the connection by reading the connection number field of the compressed TCP/IP header in the packet of application (see col. 3, lines 30-33) and further Sen et al. teach a method steps for detecting an active data packet connection, including a data pack, decoding a connection number field in a compressed header of said data packet to determine a connection number for said data packet and furthermore providing a table comprising a first set of data and second set of data, said first set of data containing a plurality of identified connection numbers, and said second set of data containing a corresponding quality of service plane for each identified connection number in the

table (see claim 1) which Sen is basically employing a process for detecting packets the same as the applicant's invention. Sen et al. **do not explicitly teach** adding error-detecting codes to the application data. **However**, Gage et al. in an analogous art teach a radio link protocol to a data link for wireless systems (see col. 1, lines 6-8). Gage et al. teach that an RLP type based on the generic service(s) available to mobile station, as for example voice services, packet data services, and/or circuit switched data services and the voice service may use an RLP providing error detection and forward error correction, the packet data service may use an RLP providing error detection and retransmissions, while the circuit switched data service may use an RLP providing transparent bit service (see col. 3, lines 33-67). **Therefore**, it would have been obvious to a person having an ordinary skill in the art at the time the invention was made implement the system of Sen et al. employing a process for detecting error packets as taught by Gage et al. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated in order to improve efficiency and improve the information bit rate.

As per claim 2, Sen et al. teach that an IP packet is sent over a serial line and is passed through a V-J Header compressor. The compressor checks if the protocol is TCP and marks the packets as TYPE_IP if the packets are non-TCP or un-compressible and passed to a PPP framer (see col. 5, lines 28-35).

As per claim 3, Sen et al. teach that a classification application utilizing a table of connection numbers and associated TCP/IP applications is utilized for determining a wireless packet communication, quality of service level by decoding (deciphering) a connection number field of the compressed packet header (see abstract).

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As per claims 6-9, Gage et al. teach that an RLP type based on the generic service(s) available to mobile station, as for example voice services, packet data services, and/or circuit switched data services and the voice service may use an RLP providing error detection and forward error correction, the packet data service may use an RLP providing error detection and retransmissions, while the circuit switched data service may use an RLP providing transparent bit service (see col. 3, lines 33-67).

As per claims 10-15, Sen et al. in figure 2 teach an adaptation control (208) utilizes resource control (210) to determine specific QoS classes for detected and identified signals and the resource control contains a database of user profiles that include class of service for each customer that accesses the system. An incoming voice signal is transmitted via MSC (216) to Mux and QoS sublayer in BTS (215), the voice signal is then transmitted from (BTS 215) to receiving device (218) and all data signals are transmitted through QAS (206). LAC/MAC (212) instances associated with different QoS classes have different mechanisms controlling the radio resources to achieve corresponding QoS requirements and different LAC/MAC ARQ and RLP require a different set of dedicated physical layer channels with specific QoS capabilities (see col. 4, lines 27-67).

As per claims 16-19, Sen et al. in figure 2 teach an adaptation control (208) utilizes resource control (210) to determine specific QoS classes for detected and identified signals and the resource control contains a database of user profiles that include class of service for each customer that accesses the system. An incoming voice signal is transmitted via MSC (216) to Mux and QoS sublayer in BTS (215); the voice signal is then transmitted from (BTS 215) to receiving device (218) and all data signals are transmitted through QAS (206). LAC/MAC (212)

instances associated with different QoS classes have different mechanisms controlling the radio resources to achieve corresponding QoS requirements and different LAC/MAC ARQ and RLP require a different set of dedicated physical layer channels with specific QoS capabilities (see col. 4, lines 27-67).

As per claims 20-24, Gage et al. teach AIPs define a limited number of RLPs and select the RLP for a connection during the connection setup phase based on the service requirements and the service is defined by the type of information transmitted (i.e. voice, packet data, control packet, etc.) and by the quality of service (QoS) required and the quality of service (QoS) of a particular type of service is dependent upon the errors encountered over the communication link, the delays encountered in transmitting the information, and/or the information lost while transmitting over the communications link (see col. 1, lines 49-59).

As per claims 26-28, Sen et al. teach that an integrated Services provides end to end QoS with by reserving resources for data traffic and signaling is a protocol that reserves the resources so as to provide the required QoS and further the integrated service is independent of the actual mechanism used to provide the reservations, but integrated services specifies generically traffic and path characteristics for a transmission (col. 2, lines 21-26).

As per claims 29-32, Sen et al. teach that classification application utilizing a table of connection numbers and associated TCP/IP applications is utilized for determining or judging a wireless packet communication, quality of service level by decoding a connection number field of the compressed packet header (see abstract).

As per claims 33-38, Gage et al. teach that an RLP type based on the generic service(s) available to mobile station, as for example voice services, packet data services, and/or circuit

switched data services and the voice service may use an RLP providing error detection and forward error correction, the packet data service may use an RLP providing error detection and retransmissions, while the circuit switched data service may use an RLP providing transparent bit service (see col. 3, lines 33-67).

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Esaw Abraham whose telephone number is (571) 272-3812. The examiner can normally be reached on M-F 8-5.

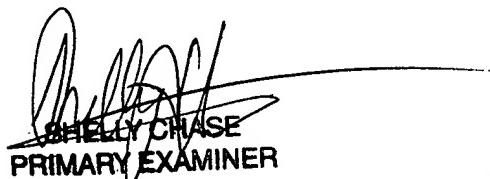
If attempts to reach the examiner by telephone are successful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

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Esaw Abraham

Esaw Abraham

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Shelley Chase

SHELLEY CHASE
PRIMARY EXAMINER